REMARKS

Claim 1, which claims a combination in Jepson form, as set forth in 37 CFR 1.75(e), has been amended

a) first, in the preamble, to further define those elements of the combination of the entire claim which are old, and

b) second, those elements of the claim that applicant considers to be the improvement.

The Rejection on Sauer 4,317,641

Claim 1, as previously submitted, has been rejected in view of the Sauer '641 reference.

a) The Sauer '641 reference in view of the preamble of Claim 1

The elements of the presently claimed combination in the preamble, are admittedly old, and present in the Sauer '641 reference. Sauer '641 does have a straight locking latch 21 cantilevered from a base in a connector at a bend that is capable of flexing and forming a pivot for his straight locking latch 21 to permit his straight locking latch 21 to pass through the slot and lock the connector to the main beam.

b) The Sauer '641 reference in view of the improvement as set forth in Claim 1

Sauer '641 does not have a bend in the form of an arc, that is capable of flexing along the arc toward the base to permit his straight latch 21 to pass through the slot. It is

this element of the combination as now claimed, that applicant considers new. Sauer '641 has a bend in the form of an acute angle, and his straight latch 21 pivots at this bend. The bend in Sauer '641 flexes at the apex of this acute angle, which is essentially a single point, as for instance, in a hinge on a door.

This can be seen in the cited Sauer '641 reference. The straight locking latch is referred to (column 3, lines 7 and 8) as a "resilient yieldable finger 21". Resilient finger 21 (straight locking latch) of Sauer '641 extends from the base from a bend formed on an acute angle. The Sauer '641 resilient finger 21 (straight locking latch) is cantilevered from such bend, whereby immediate contact is made with the side of the slot.

Such immediate contact in the prior art resulted in a chain of contacts between the side of the slot, and with the connector already in the slot, and such contacts created immediate and substantial resistance forces. This is shown in the graph in Figure 4a of the application.

Element 26 of the Sauer '641 reference, designated a spring retainer, is not a locking latch, straight or otherwise, and does not pivot at a bend and does not flex to create a pivot. Element 26 of Sauer '641 does not pass through the slot.

Element 26 of Sauer '641 is described as follows in his specification: "As the paired cross tees are thus assembled, the forward edge 20 of each connector passes between the spring retainer 26 and web 16 of the other connector until its locking

detent 24 is positioned within cutout 27 for engagement of detent edge 25, against the shoulder 28 of the other connector." (column 3, lines 40 to 46)

The function of element 26 of Sauer '641 is simply to capture and guide the forward edge of the opposing connector while the connection is being made, and to keep the connectors against one another after the connection is made.

The resilient finger 21 (straight locking latch) disclosed in Sauer '641 and discussed above, has an acute angle bend that forms a pivot. Retainer 26 of Sauer '641 is not a locking latch, and does not have a bend that forms a pivot. Retainer 26 does not pass through the slot in the main beam, and does not lock the connector to the main beam.

The above explanation is visually illustrated in attached Exhibit 1, which shows views A through G that have been created by applicant to illustrate the above argument. The connectors illustrated are copies made from the Sauer '641 patent, and then manipulated to illustrate the making of the connection. The views show what is set forth in the remarks above.

Presently Amended Claim 1

In the amended claim 1 of the present invention, the bend is defined as being in arc form capable of flexing along the arc toward the base to permit the latch to pass through the slot. Such a bend in arc form creates a delay that results in many benefits, including the need for substantially less force to push the second connector, with its straight locking latch of the invention 40, through the slot when an identical first connector is already in the slot. The present application

illustrates this with the graphs drawn in the Figures 4a to 4c.

During the delay, certain alignments and movements occur with respect to the second connector being inserted, so that when contact is made by the locking latch, substantially less force is needed to pivot the straight locking latch of the invention on the second connector, and engage the second connector with the first connector and the main beam. This is shown in the graph of Figure 4b.

Applicant believes the amendments clearly define the present invention, and the remarks explain the patentability of these claims over Sauer '641.

Applicant has also amended the dependent claims to define what the claimed structure is capable of doing. Such limitation further defines the invention over the prior art, and particularly over the Sauer '641 reference.

Respectfully submitted,

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